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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,343	03/29/2004	David Leon	037145-3101	5004

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EXAMINER

ABRAHAM, ESAW T

ART UNIT	PAPER NUMBER
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2112

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/813,343

Applicant(s)

LEON ET AL.

Examiner

Esaw T. Abraham

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2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 9, 12, 15-18, 20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 3, 5-8, 10, 11, 13, 14, 19, 21, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 9, 12, 15-18 and 22 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


GUY LAMARRE
PRIMARY EXAMINER

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

RESPONSE TO APPLICANT'S ARGUMENT

Applicant's arguments, filed 02/22/07, with respect to claims 1, 9, 15, and 18 have been fully considered but they are not persuasive.

The applicant argues that the prior art of record Gupta does not teach retransmitting all of the not received data via point to point to multi-point session. However, Gupta et al. teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (NAK) or receipt (ACK) of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets (For example on page 11 of the applicant's specification, the applicant teaches that the sender receives these NACK messages and retransmits the requested data packets on the point-to-multipoint session) to intended receivers (see col. 6, lines 14-23 and abstract) which the applicant's invention is basically similar to Gupta et al. method of retransmitting data.

Therefore, the application of the prior art in relation to the claimed invention is appropriate.

Status of Claims

Claims 1, 4, 9, 12, 15, 16, 17, 18, 20 and 22 remain pending.

Claims 2-3, 5-8, 10, 11, 13, 14 and 19, have been allowed.

Claims 21, 23 and 24 have been previously allowed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims **4 and 12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, the term "possible" renders the claim indefinite since the term "possible" is a language that suggests or makes optional. (see line 3).

Regarding claim 12, which have the phrases "the sender can determine" and "the number of receivers can compute" are not specific and vague (for example, the sender can determine the number of receivers. Which is the sender can determine or cannot determine the number of receivers).

The rejection below will treat the phases "the sender can determine" as ---the sender determine---

Claim Rejections - 35 USC § 101, Non Statutory

2. Claims **15-17, and 22** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because:

Claims **15, 16 and 22** are directed toward a computer code product comprising computer code configured to transmit data from a sender to a plurality of receivers via a point-to-multipoint session, receivers, determine if expected data was not received at

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any of the plurality of make a data repair request if any expected data was not received at any of the plurality of receivers and retransmit all of the requested expected-but-not-received data to the plurality of receivers via the point-to-multipoint session.

The claim recites the term "**configured to**" which is language that suggests or makes optional. See MPEP 2111.04. In other words if the computer code **configured to** transmit, it is not the same as transmitting. It is the end result of the process that is analyzed in order to determine if the claimed invention yields a useful, concrete and tangible result. Claims 15, 16 and 22 of the present application recites that the transmission could take place and not that it actually does.

Further the claims are lacking a practical application since an appropriate computer readable storage medium to define a structural and functional interrelationship between computer program and other elements of a computer is required in order to permit the functionality of the computer program to be realized. For example, the applicant's specification page 12 paragraph 0047 teaches a computer program product comprising program code stored in the receiver device (embodied in a computer medium) and run in the processor (executed by a processor) used to implement the procedure at the receiving end.

Claim 17 depend from respective claims, hence inherit the deficiencies of claim 15.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S. C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1, 9, 15 and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by Gupta et al. (U.S. PN: 6,577,599).

As per claims 1, 9 and 18:

Gupta et al. teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract). Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39).

As per claim 15:

Gupta et al. teach all the subject matter claimed in claims 1 and 9 including Gupta et al. teach a system comprising a processor, a memory, code executed by said processor configured to multicast information to a plurality of receivers in a computer network, said code comprising a method for transmitting information to one or more

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receivers, a method for receiving one or more responses from said one or more receivers and a method for retransmitting information to said one or more receivers based on said one or more responses (see col. 13, lines 11-12 and claim 5).

Allowable subject matter

4. Claims 16, and 22 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C 101.

Claims 4 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 20 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent from including all of the limitation of the base claim and any intervening claims.

The claimed invention comprising wherein the sender device is further comprises means for determining the number of receivers using point-to-multipoint session wherein the sender is configured to schedule the point-to-point data repair sessions based on the determined numbers of receivers which the prior art do not teach or render obvious.

Examiner's statement for reason for allowance

5. Claims 2-3, 5-8, 10, 11, 13, 14 and 19 have been allowed.

Claims 21, 23 and 24 have been previously allowed.

The following is an examiner's statement for allowance:

As per claim 2:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract). Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious after the sender retransmitted data, if some data was still not received, scheduling point-to-point repair sessions for specific receivers that expected data that was not received. Consequently, claim 2 is allowed over the prior art.

Claims 2-3 and 5-8, which is dependent of claim 2 are also allowable.

As per claim 10:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets

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to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract). Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious the sender device is further configured to schedule point-to-point data repair sessions with the plurality of receivers after retransmission of the requested data and the sender is configured to send expected but not received data to the plurality of receivers via point-to-point system. Consequently, claim 10 is allowed over the prior art.

Claims 11, 13 and 14, which are dependent of claim 10 are also allowable.

As per claim 19:

The prior art, Gupta et al. (U.S. PN: 6,577,599) of record teach or disclose a method and an apparatus for efficient and reliable multicasting in a network environment and a sender transmits identical information encapsulated in data packets to a plurality of receivers wherein periodically, receivers submit responses that include control information regarding the loss (expected data not received) or receipt of data packets transmitted by the sender and using these information a sender retransmits any

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undelivered packets to intended receivers (see col. 6, lines 14-23 and abstract). Gupta et al. in figure 3, step (310) teach that the sender analyzes data-loss response generated by the receiver and further adjusts the response rate at step (330), so that the multicasting (point-to-multipoint) of information is accomplished most optimally (i.e. minimizing the network traffic, and maximizing error recovery and repair) (see col. 9, lines 28-39). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious means for scheduling point-to-point data repair sessions with the plurality of receivers after retransmitting the required expected-but-not-received data. Consequently, claim 19 is allowed over the prior art.

Conclusion

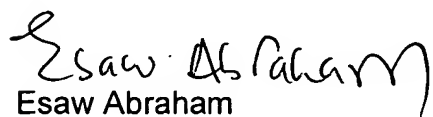
6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more

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information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Esaw Abraham

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GUY LAMARRE
PRIMARY EXAMINER